

# PATENT ABSTRACTS OF JAPAN

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## (54) METHOD AND INSTRUMENT FOR MEASURING NONLINEAR CHARACTERISTIC OF AMPLIFIER

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a method and an instrument for measuring a nonlinear characteristic of an amplifier, that can measure both amplitude and phase change characteristics of the amplifier only from an output signal of the amplifier when the amplifier amplifies an OFDM signal.

**SOLUTION:** In the method and instrument for measuring the nonlinear characteristic of the amplifier in the OFDM (Orthogonal Frequency Division Multiplex) transmission, the nonlinear characteristic is acquired by comparing the amplitude and the phase of a signal, which is obtained by applying Fourier transform to a multi-carrier signal and also applying inverse Fourier transform to the resulting signal, with those of a signal, which is obtained by applying correction with respect to signal space diagram to a signal resulting from applying inverse Fourier transform to the multi-carrier signal. Furthermore, averaging pilot signals obtained through the processing of a plurality of symbols is used as a pilot for the application of the correction.

